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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,725	01/22/2004	Gurcan Aral	A-1451/Tank-228	9411

7590

11/17/2005

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EXAMINER

NGUYEN, TAN QUANG

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/763,725

Applicant(s)

ARAL, GURCAN

Examiner

TAN Q. NGUYEN

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/22/04; 11/08/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAIL ACTION**

### ***Notice to Applicant(s)***

1. This application has been examined. Claims 1-52 are pending.
2. The prior art submitted on January 22, 2004 and November 08, 2005 have been considered.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 9-15, 17-25, 27-35, 37-43 and 45-51 are rejected under 35 U.S.C. 102(e) as being anticipated by Dickson et al. (6,445,983).
5. As per claim 1, Dickson et al. disclose the invention as claimed which includes the steps of obtaining a set of positioning data of the vehicle using a navigation with a navigation antenna mounted at an optimum antenna position (see at least figure 2, step 100 and figure 5), modifying the set of positioning data of the vehicle (see at least figure 2, step 110), measuring a steering angle of the front wheel and calculating a correction to the measured steering angle of the 2-D plane (see at least figures 1, 3 and the related text), and performing a steering action by using the correction to the measured steering angle (see at least figure 3, steps 260).

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6. As per claim 2, Dickson et al. disclose that the navigation system may includes a GPS receiver (see column 2, lines 45-53).

7. As per claim 3, Dickson et al. further disclose the distance between the optimum antenna position and the center of gravity position (see at least column 5, lines 52-66).

8. As per claim 4 and 5, Dickson et al. also disclose the use of angular sensor or rotary potentiometer to measure the steering angle (see column 3, lines 39-47).

9. As per claim 6, Dickson et al. disclose that the step of calculating the steering correction includes the step of feeding a control data into the steering control algorithm (see at least column 3, lines 36-50).

10. As per claim 7, Dickson et al. disclose the hydraulic steering system (see at least column 3, lines 51-67).

11. With respect to claims 9-15, the limitations of these claims have been noted in the rejections above. Dickson et al. further disclose that the system can be used in the 3-D surface (see at least column 4, lines 36-56). They are therefore considered rejected as set forth above.

12. With respect to claims 17-25, 27-25, 37-43 and 45-51, the limitations of these claims have been noted in the rejections above. They are therefore considered rejected as set forth above.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

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Patentability shall not be negated by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 8, 16, 26, 36, 44 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickson et al. as applied to the claims above, and further in view of Fujioka et al. (6,886,656).

16. Dickson et al. disclose the claimed invention as discussed above except for the use of "flight by wire" system for controlling the steering angle. However, such "flight by wire" system is well known in the art at the time the invention was made and is shown in at least figure 1 of the Fujioka et al. reference. It would have been obvious to an ordinary skill in the art to use to flight by wire system as shown in the Fujioka et al. reference to control the steering angle in order to reduce all the mechanical of the conventional steering system.

### ***Conclusion***

17. All claims are rejected.

18. The following references are cited as being of general interest: Ono (5,299,130), Yamashita (5,639,709), Diekhans (6,073,070), Hrovat et al. (6,184,821), Quincke

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(6,345,231), Carlson et al. (6,655,465), Bevly et al. (6,681,180), Rekow et al. (6,789,014), and Upadhyaya et al. (6,941,225).

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Tan Q. Nguyen, whose telephone number is (571) 272-6966. The examiner can normally be reached on Monday-Thursday from 5:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (571) 272-6956.

Any response to this action should be mailed to:

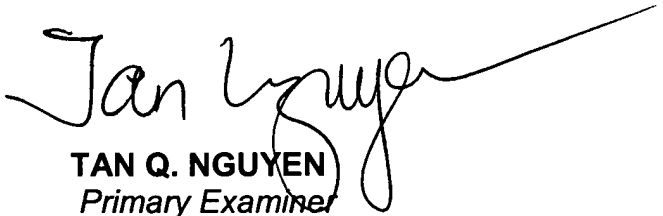
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or faxed to the Official Fax Center:

(571) 273-8300

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/tqn  
November 14, 2005

  
**TAN Q. NGUYEN**  
Primary Examiner  
Art Unit 3661